

March 12th, 2018

Ms. Pamela Gupta
Manager
Greenhouse Gas Reduction Strategy Section
Research Division
California Air Resources Board
1001 I Street
Sacramento, CA 95814

RE: Structural Concepts Corporation Comments – California Air Resources Board Proposed Regulation for Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration and Foam End-Uses

These comments are submitted by Structural Concepts Corporation in response to the California Air Resources Board (ARB) Proposed Regulation for Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration and Foam End-Uses posted on January 30, 2018.

Structural Concepts Corporation is a privately held company located in Muskegon MI. We are a producer of remote and stand-alone commercial refrigerated units for the retail and food service industry. 80% of our equipment is standalone with the vast majority of our cases falling in the ¼ to 3 hp range. We have over 600 active models in our product offering. Structural Concepts is a member of both AHRI and NAFEM.

Structural Concepts fully support the comments submitted by AHRI. In particular the following passages:

“PROCESS CLARIFICATION

It is unclear from the proposed regulation how ARB will manage and regulate the use of acceptable HFC refrigerants. In the current proposed regulation, there is no reference to how California will determine or acknowledge acceptable refrigerants. Without clear direction, this could create confusion as manufacturers determine which refrigerants are acceptable alternatives to the list of prohibited substances in Appendix A. The EPA maintains a list of acceptable refrigerants that provides guidance to manufacturers regarding which refrigerants are legal as replacements for prohibited substances at the federal level. Manufacturers need clarification for how California will identify acceptable refrigerants

and the process that will be used for that determination. AHRI urges that ARB acknowledge and abide by the EPA's SNAP listing process, which remains a viable program and was unaffected by the recent litigation on related regulations. It is a vital principal of the SNAP program that replacement refrigerants are identified and approved prior to the prohibition of existing refrigerants. Because EPA's regulations remain the law of the land, manufacturers, distributors, and consumers are operating under the expectation that all EPA-approved refrigerants will remain so in California, unless expressly prohibited. It would be helpful for ARB to clarify this legal reality in express terms.

Additionally, ARB has not included any information on the future process for determining prohibited refrigerants beyond those listed in Appendix A of the proposed regulation. In order to comply and plan for future regulation, manufacturers need clarity on how California will continue to regulate HFC refrigerants in all end-uses.

COORDINATION WITH ENVIRONMENT AND CLIMATE CHANGE CANADA (ECCC)

In the proposed regulation, R-404A would be prohibited for commercial refrigeration stand-alone medium temperature units between 2019 and 2020. AHRI would like to see the prohibition on R-404A delayed one year for stand-alone equipment. This delay would allow EPA the opportunity to approve an acceptable alternative such as R-448A and R-449A&B. AHRI has petitioned EPA for approval of an acceptable replacement in R-448A and R-449A&B. While these refrigerants are not yet EPA SNAP approved for this end use, AHRI is actively pursuing their approval and filed a petition with the EPA in March 2017, and it was expected that EPA would act favorably on this petition in the near future. However, with no acceptable refrigerant currently identified for R-404A, serious market confusion and disruption is likely to occur. In coordinating with the ECCC regulation, ARB should amend its refrigeration regulation to allow for the use of R-448A and R-449A&B in stand-alone medium-temperature applications. These refrigerants have a low GWP and can be retrofitted in R-404A systems. Testing done by manufacturers show a 5 to 10% efficiency improvement over R-404A. In addition, components compatible with these refrigerants are readily available and the supply chain has reached a level of maturity comparable to R-404A which could significantly reduce the time needed to use these alternatives in this application. We strongly recommend that ARB update the proposed regulation to allow for the use of R-448A and R-449A&B in stand-alone medium-temperature commercial refrigeration applications moving forward. As mentioned above, further clarification on the future

process with an emphasis on California allowing refrigerants approved by the EPA would benefit end users and manufacturers when complying with these regulations.”

Structural Concepts would like to further add that the Proposed Regulation as written does not contain verbiage for future additions of refrigerants approved by the EPA such as the aforementioned R-448A, R-449A&B. Without provisions to include these refrigerants it will force stand-alone medium temperature refrigerated equipment above 8000 btuh to be sold as remote condensing cases in the state of California. This will limit the customer base that can use this equipment. It will also lead to increased leakage rates of higher GWP refrigerants as remote installations have inherently larger charges and are more susceptible to field leaks than factory installed and inspected braze joints.

Sincerely,

Jason Paquette
Director of Engineering
Structural Concepts Corporation

